



STATE OF WASHINGTON
STATE BUILDING CODE COUNCIL

TAG Approved
As Modified
5/12/22

May 2018
Log No. _____

1. State Building Code to be Amended:

- International Building Code
- ICC ANSI A117.1 Accessibility Code
- International Existing Building Code
- International Residential Code
- International Fire Code
- Uniform Plumbing Code

- International Mechanical Code
- International Fuel Gas Code
- NFPA 54 National Fuel Gas Code
- NFPA 58 Liquefied Petroleum Gas Code
- Wildland Urban Interface Code

For the Washington State Energy Code, please see specialized [energy code forms](#)

Section(s):

IMC 501.3.1

Title:

Transformer vault exhaust system outlets.

2. Proponent Name (Specific local government, organization or individual):

Proponent: City of Bellevue

Title: Mechanical plan reviewer

Date: 02/28/22

3. Designated Contact Person:

Name: Valerie Graber

Title: Mechanical plan reviewer

Address: 450 110th Av NE, Bellevue WA 98004

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4. Proposed Code Amendment. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code additional pages may be attached.

Code(s) 2021 IMC Section(s) 501.3.1 exception 5.

501.3.1 Location of Exhaust Outlet. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

1. For ducts conveying explosive or flammable vapors, fumes, or dusts: 30 feet (9144 mm) from the property line; 10 feet (3048 mm) from operable openings into the building; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls and operable openings into the building which are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade.
2. For other product-conveying outlets: 10 feet (3048 mm) from property lines; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from operable openings into the building; 10 feet (3048 mm) above adjoining grade.
3. For environmental air duct exhaust other than enclosed parking garage and transformer vault exhaust: 3 feet (914 mm) from property lines, 3 feet (914 mm) from operable openings into the building for all occupancies other than Group U, and 10 feet (3048 mm) from a mechanical air intake.

Exceptions:

1. The separation between an air intake and exhaust outlet on a single listed package HVAC unit.
2. Exhaust from environmental air systems other than garages may be discharged into an open parking garage.
3. Except for Group I occupancies, where ventilation system design circumstances require building HVAC air to be relieved, such as during economizer operation, such air may be relieved into an open or enclosed parking garage within the same building.
4. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the elevation required by Section 1613 of the International Building Code for utilities and attendant equipment.
5. For enclosed parking garage exhaust system outlets and transformer vault exhaust system outlets: 10 feet (3048 mm) from property lines which separate one lot from another: 10 feet (3048 mm) from operable openings into buildings; 3 feet (914 mm) horizontally from, 10 feet (3048 mm) above or 10 feet (3048 mm) below adjoining finished sidewalk.
6. For elevator machinery rooms in enclosed or open parking garages: Exhaust outlets may discharge air directly into the parking garage.
7. For specific systems see the following sections:
 - 7.1 Clothes dryer exhaust, Section 504.4.
 - 7.2 Kitchen hoods and other kitchen exhaust equipment, Sections 506.3.13, 506.4 and 506.5.
 - 7.3 Dust stock and refuse conveying systems, Section 511.2.
 - 7.4 Subslab soil exhaust systems, Section 512.4.
 - 7.5 Smoke control systems, Section 513.10.3.
 - 7.6 Refrigerant discharge, Section 1105.7.
 - 7.7 Machinery room discharge, Section 1105.6.1.

Amend section to read as follows:

501.3.1 Location of Exhaust Outlet. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

1. For ducts conveying explosive or flammable vapors, fumes or dusts: 30 feet (9144 mm) from the property line; 10 feet (3048 mm) from operable openings into the building; 6 feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls and operable openings into the building which are in the direction of the exhaust discharge; 10 feet (3048 mm) above adjoining grade.

2. For other product-conveying outlets: 10 feet (3048 mm) from property lines; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from operable openings into the building; 10 feet (3048 mm) above adjoining grade.
3. For environmental air duct exhaust other than enclosed parking garage and transformer vault exhaust: 3 feet (914 mm) from property lines, 3 feet (914 mm) from operable openings into the building for all occupancies other than Group U, and 10 feet (3048 mm) from a mechanical air intake.

Exceptions:

1. The separation between an air intake and exhaust outlet on a single listed package HVAC unit.
2. Exhaust from environmental air systems other than garages may be discharged into an open parking garage.
3. Except for Group I occupancies, where ventilation system design circumstances require building HVAC air to be relieved, such as during economizer operation, such air may be relieved into an open or enclosed parking garage within the same building.
4. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the elevation required by Section 1613 of the International Building Code for utilities and attendant equipment.
5. For enclosed parking garage exhaust system outlets ~~and transformer vault exhaust system outlets~~: 10 feet (3048 mm) from property lines which separate one lot from another: 10 feet (3048 mm) from operable openings into buildings; 3 feet (914 mm) horizontally from or 10 feet (3048 mm) above or 10 feet (3048 mm) below ~~adjoining finished sidewalk~~ walkways.

6. For transformer vault exhaust system outlets, in addition to the requirements of NFPA 70 Section 450.45: 10 feet (3048 mm) from property lines which separate one lot from another; 10 feet (3048 mm) from operable openings into buildings; 10 feet (3048 mm) above any walking walkways surface. For additional requirements refer to NEC 450.45.

7. For elevator machinery rooms in enclosed or open parking garages: Exhaust outlets may discharge air directly into the parking garage.

8. For specific systems see the following sections:

8.1 Clothes dryer exhaust, Section 504.4.

8.2 Kitchen hoods and other kitchen exhaust equipment, Sections 506.3.13, 506.4 and 506.5.

8.3 Dust stock and refuse conveying systems, Section 511.2.

8.4 Subslab soil exhaust systems, Section 512.4.

8.5 Smoke control systems, Section 513.10.3.

8.6 Refrigerant discharge, Section 1105.7.

8.7 Machinery room discharge, Section 1105.6.1.

5. Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.

Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

This code section should separate enclosed parking garage exhaust from transformer exhaust. Garage exhaust is defined in the IMC as environmental air. Transformer exhaust is not mentioned in the IMC. Transformer exhaust requirements are in the NEC 450.45. The air exhausted from a transformer vault (under normal conditions) is heat only. The exhaust fan shuts off due to a set max temperature. In the event of an explosion the fan is off and the duct acts as a relief for fire and smoke.

6. Specify what criteria this proposal meets. You may select more than one.

- The amendment is needed to address a critical life/safety need.
- The amendment clarifies the intent or application of the code.
- The amendment is needed to address a specific state policy or statute.
- The amendment is needed for consistency with state or federal regulations.
- The amendment is needed to address a unique character of the state.
- The amendment corrects errors and omissions.

7. **Is there an economic impact:** Yes No

Explain:

If there is an economic impact, use the tool below to estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. If preferred, you may submit an alternate cost benefit analysis.

Provide your best estimate of the construction cost (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). **Webinars on the tool can be found [Here](#) and [Here](#)**)

\$Click here to enter text./square foot (For residential projects, also provide \$Click here to enter text./dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

Please send your completed proposal to: sbcc@des.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.